# 张平文

## 北京大学数学科学学院 科学与工程计算系

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#### 教育背景

1988 - 1992 博士研究生 北京大学数学科学学院 导师:应隆安教授

1984 - 1988 学士 北京大学数学系

#### 工作经历

2020 - 北京大学科技创新研究院院长

2019 - 北京大学副校长

2018 - 大数据分析与应用技术国家工程实验室主任

2019 - 2021 北京大学大数据科学研究中心主任2018 - 2019 北京大学科学与工程计算中心主任

2015 - 2019 北京大学学科建设办公室主任

2013 - 2015 北京大学数学科学学院常务副院长

2010 - 2017 数学及其应用教育部重点实验室主任

2008 - 2012 北京大学数学科学学院副院长

2008 - 2012 北京大学数学科学学院副院长

2008 - 2010 数学及其应用教育部重点实验室副主任 2001 - 2018 北京大学科学与工程计算中心常务副主任

1999 - 2008 北京大学数学科学学院科学与工程计算系主任

 1996 北京大学数学科学学院教授

 1994 - 1996
 北京大学数学科学学院副教授

1992 - 1994 北京大学数学科学学院助理教授

#### 研究领域

- 软物质(复杂流体)的建模和计算
- 应用分析和数值计算
- 大数据分析与应用

#### 荣誉与奖励

| 2021  | 何梁何利基金科学与技术讲步奖 |
|-------|----------------|
| ZUZ I |                |

 2020
 美国工业与数学学会会士

 2016
 发展中国家科学院院士

2015 中国科学院院士

 2014
 国家自然科学奖二等奖

 2014
 国家自然科学基金创新研究群体项目学术带头人

 2010
 北京市师德标兵

 2007
 教育部高校科学技术奖自然科学一等奖

 2002
 国家自然科学基金杰出青年科学基金

 2002
 长江学者

 1999
 冯康科学计算奖

#### 学术兼职

中国工业与应用数学学会(CSIAM)理事长 2016 -2004-2016 中国工业与应用数学学会(CSIAM), 副理事长, 学术委员会主任, "大规模科学与工程计算"国家重点实验室,学术委员会副主任 2015 -北京应用物理与计算数学研究所计算物理实验室、学术委员会副主任 2006 -"大规模科学与工程计算"国家重点实验室,学术委员会副主任 2001 - 2006 2010 - 2014 中国计算数学学会, 副理事长 中国计算数学学会, 副理事长 2002 - 2006 吉林大学,兼职教授 2005 -湘潭大学,兼职教授 2004 -苏州大学,兼职教授 2004 -1999 - 2001 清华大学,兼职教授

#### 学术交流

2004.03-05 普林斯顿大学应用和计算数学系, 访问学者, 美国 2002.01-02 普林斯顿大学应用和计算数学系,访问学者,美国 香港科技大学数学系,访问学者 2001.01-02 1999.07-08 加州理工大学应用数学系, 访问学者, 美国 香港浸会大学数学系,访问学者 1999.05 香港浸会大学数学系, 访问学者 1998.09-1999.02 加州理工大学应用数学系, 访问学者, 美国 1997.11-1998.08 香港中文大学数学系, 访问学者 1996.04 加州理工大学应用数学系,访问学者,美国 1995.02-11 计算物理国家实验室, 访问副教授 1993-1996:

#### 杂志编委

| 2020 - | CSIAM Transactions on Applied Mathematics (Editor in Chief)           |
|--------|-----------------------------------------------------------------------|
| 2014 - | Multiscale Modeling & Simulation, A SIAM Interdisciplinary Journal    |
| 2013 - | Science China Mathematics                                             |
| 2012 - | Discrete and Continuous Dynamical System-B                            |
| 2011 - | Journal of Mathematics in Industry (Coordinating Editors)             |
| 2010 - | Applied Mathematics and Mechanics:(Associate Chief Editor Since 2014) |

2007 -Journal of Computational Mathematics 2006 -Communications in Computational Physics International Journal of Nonlinear Science 2006 -2005 -Communication in Mathematical Sciences 2005 -Journal of Information and Computational Science 2005 - 2013 SIAM Journal on Numerical Analysis 2002 -Applied Mathematical Research Express (AMRX) 2010 -Advances in Mathematics (China) 2007 -《工程数学学报》 《数学杂志》 2006 -2004 -《计算数学》 2004 -《计算物理》 2004 -《东北数学》

#### 主办会议

- The 8th International Congress on Industrial and Applied Mathematics (ICIAM 2015), 学术子委员会主席, 北京, 2015.8.10-14.
- Frontiers of Applied and Computational Mathematics, 北京, 2015.8.7-9.
- Workshop of Mathematical Analysis, Modeling and Computations on Liquid Crystals and Related Topics, 北京, 2015.8.8-9.
- One-Day Workshop on Mathematical Theory of Liquid Crystals, 北京, 2014.9.29.
- Northeastern Asian Symposium on Methods and Modeling for High Performance Scientific Computing, 2013.9.22-25.
- Modeling and Mathematical Theory of Phase Transition, 北京大学, 2011.12.31.
- The First Cross-straits Workshop on Computational Mathematics, 厦门, 2010.8.3-6.
- Computational Problems in Material Sciences, 苏州, 2010.8.2-4.
- Workshop on Numerical Methods of PDEs, 广州, 2010.7.28-31.
- The 7th International Conference on Scientific and Applications, 大连, 2010.6.13-16.
- China-Germany Conference on "Mathematics and Industry", 北京, 2010.3.15-17.
- The 5th China-Italy Conference on Computational and Applied Mathematics, Mathematical models in Life Science: Theory and Simulation, 意大利,罗马, 2009.11.
- International Workshop on Quantum Systems and Semiconductor Devices: Analysis, Simulations, Applications, 北京, 2009.04.
- Rheology of complex fluids: Modeling and Numerics, 法国, 巴黎, 2009.01.
- Multiscale Modeling of Complex Fluids专题活动, 北京大学, 2007.09-2008.05
- Multiscale Modeling of Complex Fluids, University of Maryland, 2007.04
- Mathematical and numerical modeling of nanoscale devices暑期学校, 北京大学, 2005.06-07.
- Adaptive method and applications暑期学校, 北京大学, 2005.06-08.
- Scientific Computing and Applied Mathematics暑期学校, 北京大学2005.06-08.
- International conference on multiscale modeling and scientific computing, 北京大学, 2005.06.
- Mathematical models in life sciences: Theory and Simulation, 北京大学, Jun. 2005.
- Summer School of Scientific Computing and Applied Mathematics, 北京大学, Jul.-Aug. 2003.
- Summer School of Scientific Computing and Applied Mathematics, 北京大学, Aug.-Sept. 2003.

- The Second Chinese-Korean Joint Workshop on Recent Advances in Numerical Analysis and Its applications, 北京, 2003.02.
- Summer School of Scientific Computing and Applied Mathematics, 清华大学, 2002.07-08
- The 10th conference on Computational Methods of Fluid Mechanics (会议主席), 云南昆明, 2001.08.
- International symposium on computational & applied PDEs, 张家界, 2001.06.
- International conference on scientific & engineering computing (会议主席), 北京大学, 2001.03.
- Workshop on Numerical PDE, 北京大学, 1996.
- Overseas Chinese Computational Physics Conference, 北京, 1996.
- The 6th conference on Computational Methods of Fluid Mechanics (会议秘书), 山东大学, 1993.

#### 邀请报告

- 2018 International Congress of Mathematicians (ICM2018), 北京, 2018
- The 9th International Conference on Computational Physics, 新加坡, 2015.1.7-11.
- International Conference on Optimization, Sparsity and Adaptive Data Analysis, 北京, 2015.3.18-21.
- The 2014 SIAM Annual Meeting (AN14), Chicago, Illinois, USA, 2014.7.7-11.
- Robust Discretization and Faster Solvers for Computable Multi-Physics Models, ICERM, Brown University, 2014.5.12-16.
- The 5th International Conference on Scientific Computing and PDEs, 香港, 2014.12.8-12.
- International Conference on PDE, 广州, 2013.12.6-10.
- 2013 Northeastern Asian Symposium on Methods and Modeling for High Performance Scientific Computing,成都, 2013.9.22-25.
- 2013 International Conference on Mathematical Modeling and Computation, 武汉, 2013.5.15-19.
- Nonlinear analysis of continuum theories: statics and dynamics, Oxford, 2013.4.8-12。
- Symmetry, bifurcation and order parameters, Cambridge, 2013.1.7-11
- Multiscale Modeling, Simulation, Analysis and applications, 新加坡, 2012.1.9-13.
- International Conference on Scientific Computing, 香港, 2012.1.4-7.
- 7th International Congress on Industrial and Applied Mathematics, Vancouver, 2011.7.18-22.
- International Conference on Interdisciplinary Applied Mathematics and Computational Mathematics, 浙江, 2011.6.17-21.
- Sino-French Workshop on Contemporary Applied Mathematics, 上海, 2011.7.4-8.
- International Conference on Applied Mathematics and Interdisciplinary Research, 天津, 2011.6.13-16.
- Kinetic and Fluids, 北京, 2010.07.
- The 5th China-Italy Conference on Computational and Applied Mathematics. Mathematical models in Life Science: Theory and Simulation, Roma, Italy, 2009.09
- The 3rd Chinese-German Workshop on Computational and Applied Mathematics, Heidelberg, Germany, 2009.9.28 10.2.
- International Workshop on Continuum Modeling of Biomolecules, 北京, 2009.09
- Mathematical Theory and Numerical Methods of Computational Materials simulation and Design, 新加坡, 2009.08.
- International Conference on Mathematical Theory and Applications of Liquid Crystal, Ferromagnetism and Related Topics, 广州、2009.06.
- Computational Multiscale Methods, Oberwolfach, Germany, 2009.06.
- International Workshop on Quantum Systems and Semiconductor Devices: Analysis, Simulations, Applications, 北京, 2009.04.
- Adaptivity, Robustness and Complexity of Multiscale Algorithm, Edinburgh, England, 2009.03.
- Rheology of complex fluids: Modeling and Numerics, 法国, 巴黎, 2009.01.

- The 6th International Conference on Scientific Computing and Applications, Busan, Korea, 2008.06.
- Workshop on the Foundations of numerical PDEs (FoCM), 香港, 2008.06.
- Workshop on Nanoscale Interfacial Phenomena in Complex Fluids, 北京, 2008.06.
- Canada-China workshop on industrial mathematics, Banff, Canada, 2007.08.
- Multiscale Modeling of Complex Fluids, Maryland, 2007.04.
- International Workshop on Multiscale Analysis and Applications, 新加坡, 2006.11.
- The Symposium on Multi-physics and Muti-Scale Computation of Materials-2006, 西安, 2006.11.
- International Conference on PDE and Numerical Analysis, 长沙, 2006.06.
- Workshop on Multiscale Modeling of Complex Fluids, 北京, Jun. 2006.06.
- International Conference on Recent Advances in Scientific Computations, 北京, 2006.06.
- International Conferences on Applied Mathematics and Interdisciplinary Research, 天津, 2006.06.
- International Symposium on Polymer Physics, 苏州, 2006.06.
- Interfacial Dynamics in Complex Fluids, Banff, 加拿大, 2006.05.
- International Conference on Calculus of Variations, PDEs and Nonlinear Analysis, 北京, 2006.05.
- The second International Conference on Scientific Computing and Partial Differential Equations,香港, 2005.11.
- The 1st China-Germany Workshop on Computational and Applied Mathematics, Berlin, Germany, 2005.09.
- International conference on scientific computing, 南京, 2005.06.
- International conference on multiscale modeling and scientific computing, 北京大学, 2005.06.
- Mathematical models in life sciences: Theory and Simulation, 北京, 2005.06.
- The 3rd joint Chinese-Korean Workshop on Recent Progresses on Numerical Analysis and Its Applications, South Korea, 2005.02.
- Nanoscale Material Interfaces: Experiment, Theory and Simulation,新加坡,2005.01。
- Workshop on Multiscale Rheological Models for Fluids, Montreal, 加拿大, 2004.11.
- International Conference on Numerical and Applied PDEs, 长春, 2004.06.
- International Conference on Frontiers of Applied Mathematics, 北京, 2004.06.
- The 2nd International Conference on Inverse Problem, 上海, 2004.06.
- International Workshop on Wave Propagations, 北京, 2004.06.
- International Conference on Superconvergence and A Posteriori Estimates in FEM, 长沙, 2004.05.
- International Conference of Scientific Computing, 北京, 2003.12.
- The 3rd China-Italy Joint Conference on Computational and Applied Mathematics, Grado, Italy, 2003.11.
- The 2nd Chinese-Korean Joint Workshop on Recent Advances in Numerical Analysis and Its applications, 北京, 2003.02.
- The Third International Workshop on Scientific Computing and Applications, 香港, 2003.01.
- ICM2002-Beijing Satelite Conference on Scientific Computing, 西安, 2002.08.
- The 11th International Conference of Fluid Dynamics and Soft Condensed Matter, 上海, 2002.08.
- Workshop on Multiscale Analysis and Computation, 台湾, 2002.06.
- The 3rd China-Sweden Workshop on Computational Mathematics Goteberg, 瑞典, 2002.06.
- International symposium on computational & applied PDEs, 张家界, 2001.06.
- International conference on scientific & engineering computing, 北京大学, 2001.03.
- The First Chinese-Korean Joint Workshop on Recent advances in Numerical Analysis and Its Applications, 韩国, 2001.02.
- The 2nd Sino-Italian Symposium on Computational and Applied Mathematics, Ischia, Italy, 2000.06.
- The 2nd China-Sweden workshop on Numerical Partial Differential Equations, 香港, 2000.01.
- Conference of Partial Differential Equation and Numerical Method in Mechanics, 香港, 1999.06.
- The First Sino-Italian Symposium on Applied and Computational Mathematics, 北京, 1998.12.
- China-Japan Symposium on Computational Mathematics, 大连, 1997.08.

- 96'Symposium on Computational Physics, Institute of Computational Mathematics and Applied Physics, 北京, 1996.06.
- Summer Research Seminars on Theory and Computations of Fluid Dynamics, 北京, 1994.06.

### 专著

- 1. Long-an Ying and Pingwen Zhang, Vortex Methods, Science Press, (1994)
- 2. 徐树方, 高立, 张平文, 数值线性代数, 北京大学出版社, (2001)
- 3. 周铁,徐树方,张平文,李铁军, 计算方法, 清华大学出版社, (2006)
- 4. Tatsien Li and Pingwen Zhang (editors), Frontiers and Prospects of Contemporary Applied Mathematics, Series in Contemporary Applied Mathematics, CAM6, Higher Education Press and World Scientific, (2006)
- 5. 张平文, 李铁军 数值分析, 北京大学出版社, (2007)

#### 论文

- 1. Jianyuan Yin,Lei Zhang and Pingwen Zhang. Solution Landscape of the Onsager Model Identifies Non-axisymmetric Critical Points. Physica D: Nonlinear Phenomena, 2022, 430:133081.
- 2. Jucen Han, Jianyuan Yin, Pingwen Zhang, Apala Majumdar and Lei Zhang. Solution landscape of a reduced Landau–de Gennes model on a hexagon. Nonlinearity, 2021, 34(4):2048-2069.
- 3. Wei Wang,Lei Zhang and Pingwen Zhang. Modeling and Computation of Liquid Crystals. Acta Numerica, 2021, 30:765-851.
- 4. Jianyuan Yin, Kai Jiang, An Chang Shi, Pingwen Zhang and Lei Zhang. Transition pathways connecting crystals and quasicrystals. Proceedings of the National Academy of Sciences, 2021, 118(49):e2106230118.
- 5. Jianyuan Yin, Yiwei Wang, Jeff Z. Y. Chen, Pingwen Zhang and Lei Zhang. Construction of a Pathway Map on a Complicated Energy Landscape. Phys. Rev. Lett., 2020, 124(9).
- 6. Yucen Han, Yucheng Hu, Pingwen Zhang and Lei Zhang. Transition pathways between defect patterns in confined nematic liquid crystals. JOURNAL OF COMPUTATIONAL PHYSICS, 2019, 396:1-11.
- 7. Haochen Li, Yu, Chen, Jiangjiang Xia, Yingchun Wang, Jiang Zhu and Pingwen Zhang. A Model Output Machine Learning Method for Grid Temperature Forecasts in the Beijing Area. Advances in Atmospheric Sciences, 2019, 36(10):1156-1170.
- 8. Tian Tian, Han Wang, Wei Ge and Pingwen Zhang. Detecting Particle Clusters in Particle-Fluid Systems by a Density Based Method. COMMUNICATIONS IN COMPUTATIONAL PHYSICS, 2019, 26(5):1617-1630.
- 9. Yongqiang Cai, Pingwen Zhang and An-Chang Shi. Elastic properties of liquid-crystalline bilayers self-assembled from semiflexible-flexible deblock copolymers. SOFT MATTER, 2019, 15(45):9215-9223.
- 10. Jiajie Chen, Pingwen Zhang and Zhifei Zhang. Local minimizer and De Giorgi's type conjecture for the isotropic–nematic interface problem. calculus of Variations, 2018, 57(5):1-19.
- 11. Yiwei Wang, Pingwen Zhang and Jeff Z. Y. Chen. Formation of three-dimensional colloidal crystals in a nematic liquid crystal. SOFT MATTER, 2018, 14(32):6756-6766.
- 12. Jie Shen, Jie Xu and Pingwen Zhang. Approximations on SO(3) by Wigner D-matrix and Applications. JOURNAL OF SCIENTIFIC COMPUTING, 2018, 74(3):1706-1724.
- 13. Yixiang Luo, Jie Xu and Pingwen Zhang. A Fast Algorithm for the Moments of Bingham Distribution. JOURNAL OF SCIENTIFIC COMPUTING, 2018, 75(3):1337-1350.
- 14. Jie Xu, Fangfu Ye and Pingwen Zhang. A tensor model for nematic phases of bent-core molecules based on molecular theory. Multiscale Modeling & Simulation, 2018, 16(4):1581-1602.
- 15. Jie Xu and Pingwen Zhang. Onsager-theory-based dynamic model for nematic phases of bent-core molecules and star molecules. Journal of Non-Newtonian Fluid Mechanics, 2018, 251:43-55.
- 16. Jie Xu and Pingwen Zhang. Calculating Elastic Constants of Bent-Core Molecules from Onsager-Theory-

- Based Tensor Model. LIQUID CRYSTALS, 2018, 45(1):22-31.
- 17. Weihua Deng, Buyang Li, Wenyi Tian and Pingwen Zhang. Boundary Problems for the Fractional and Tempered Fractional Operators. MULTISCALE MODEL. SIMUL., 2018, 16(1):125-149.
- 18. Dong An, Wei Wang and Pingwen Zhang. On equilibrium configurations of nematic liquid crystals droplet with anisotropic elastic energy. Research in the Mathematical Sciences, 2017, 4(1):1-18.
- 19. Yiwei Wang and Pingwen Zhang. Topological Defects in an Unconfined Nematic Fluid Induced by Single and Double Spherical Colloidal Particles. Physical Review E, 2017, 96(4):042702.
- 20. Zhiyuan Geng, Wei Wang, Pingwen Zhang and Zhifei Zhang. Stability of Half-Degree Point Defect Pro les for 2D Nematic Liquid-CrystalsL. Discrete and Continuous Dynamical Systems, 2017, 37(12):6227-6242.
- 21. Yongqiang Cai, Pingwen Zhang and An-Chang Shi. Liquid Crystalline Bilayers Self-Assembled from Rod-Coil Diblock Copolymers. Soft Matters, 2017, 13(26):4607-4615.
- 22. Yu Tong, Yiwei Wang and Pingwen Zhang. Defects Around a Spherical Particle in Cholesteric Liquid Crystals. Numerical Mathematics-Theory Methods and Applications, 2017, 10(2):205-221.
- 23. Jinhae Park, Wei Wang, Pingwen Zhang and Zhifei Zhang. On Minimizers for the Isotropic-Nematic Interface Problem. Calculus of Variations and Partial Differential Equations, 2017, 56(2):41.
- 24. Kai Jiang, Pingwen Zhang and An-Chang Shi. Stability of Icosahedral Quasicrystals in a Simple Model with Two-Length Scales. J. Phys. Condens. Matter, 2017, 29(12):124003.
- 25. Yang Qu, Ying Wei and Pingwen Zhang. Transition of Defect Patterns from 2D to 3D in Liquid Crystals. Communications in Computational Physics, 2017, 21(3):890-904.
- 26. Jie Xu and Pingwen Zhang. The Transmission of Symmetry of Liquid Crystals. Communications in Mathematical Sciences, 2017, 15(1):185-195.
- 27. Jie Xu, Chu Wang, An-Chang Shi and Pingwen Zhang. Computing Optimal Interfacial Structure of Modulated Phases. Communications in Computational Physics, 2017, 21(1):1-15.
- 28. Kai Jiang, Jiajun Tong and Pingwen Zhang. Stability of Soft Quasicrystals in a Coupled-Mode Swift-Hohenberg Model for Three-Component Systems. Communications in Computational Physics, 2016, 19(3):559-581.
- 29. Yucheng Hu, Yang Qu and Pingwen Zhang. On the Disclination Lines of Nematic Liquid Crystals. Communications in Computational Physics, 2016, 19(2):354-379.
- 30. Shiwei Ye,Pingwen Zhang and Je Z.Y. Chen. Nematic ordering of semi-flexible polymers confined on a toroidal surface. Soft Matter, 2016, 12(24):5438-5449.
- 31. Qin Liang, Kai Jiang and Pingwen Zhang. Efficient numerical schemes for solving the self-consistent field equations of flexible–semiflexible diblock copolymers. Mathematical Methods in Applied Sciences, 2015, 38(18):4553-4563.
- 32. Pingwen Zhang and An-Chang Shi. Application of Self-consistent Field Theory to Self-Assembled Bilayer Membrane. Chinese Physics B, 2015, 24(12):128707.
- 33. Kai Jiang, Jiajun Tong, Pingwen Zhang and An-Chang Shi. Stability of Two-Dimensional Soft Quasicrystals in Systems with Two Length Scales. Physical Review E, 2015, 92(4):042159.
- 34. Sirui Li, Wei Wang and Pingwen Zhang. Local Well-posedness and Small Deborah Limit of A Molecular-Based Q-Tensor System. Discrete and Continuous Dynamical Systems Series B, 2015, 20(8):2611-2655.
- 35. Wei Wang, Pingwen Zhang and Zhifei Zhang. The Small Deborah Number Limit of the Doi-Onsager Equation to the Ericksen-Leslie Equation. Communications on Pure and Applied Mathematics, 2015, 68(8):1326-1398.
- 36. Kai Jiang, Weiquan Xu and Pingwen Zhang. Analytic Structure of the SCFT Energy Functional of Multicomponent Block Copolymers. Communications in Computational Physics, 2015, 17(5):1360-1387.
- 37. Honghu Liu, Taylan Sengul, Shouhong Wang and Pingwen Zhang. Dynamic Transitions and Pattern Formations for a Cahn-Hilliard Model with Long-Range Repulsive Interactions. Communications in Mathematical Sciences, 2015, 13(5):1289-1315.

- 38. Wei Wang, Pingwen Zhang and Zhifei Zhang. Rigorous Derivation from Landau-De Gennes Theory to Ericksen-Leslie Theory. SIAM Journal on Mathematical Analysis, 2015, 47(1):127-158.
- 39. Jiequn Han, Yi Luo, Wei Wang, Pingwen Zhang and Zhifei Zhang. From Microscopic Theory to Macroscopic Theory: a Systematic Study on Modeling for Liquid Crystals. Archive for Rational Mechanics and Analysis, 2015, 215(3):741-809.
- 40. Qin Liang, Shiwei Ye, Pingwen Zhang and Je Z.Y. Chen. Rigid Linear Particles Con ned on a Spherical Surface: Phase Diagram of Nematic Defect States. Journal of Chemical Physics, 2014, 141(24):244901.
- 41. Weiquan Xu and Pingwen Zhang. Boundary Effects in Confined Copolymer System and Compressible SCFT Model. Journal of Computational and Applied Mathematics, 2014, 265:290-300.
- 42. Haoze Tan,Qi Liao and Pingwen Zhang. Conformation of Polyelectrolytes in Poor Sol-vents: Variational Approach and Quantitative Comparison with Scaling Predictions. Journal of Chemical Physics, 2014, 140(19):194905.
- 43. Hao Zhang, Kai Jiang and Pingwen Zhang. Dynamic Transition for Landau-Brazovskii Model. Discrete and Continuous Dynamical Systems Series B, 2014, 19(2):607-627.
- 44. Jie Xu and Pingwen Zhang. From Microscopic Theory to Macroscopic Theory Symmetries and Order Parameters of Rigid Molecules. Science China: Mathematics, 2014, 57(3):443-468.
- 45. Jinglong Zhu, Pingwen Zhang, Han Wang and Luigi Delle Site. Is There a Third Order Phase Transition for Supercritical Fluids?. Journal of Chemical Physics, 2014, 140(1):014502.
- 46. Kai Jiang and Pingwen Zhang. Numerical Methods for Quasicrystals. Journal of Computational Physics, 2014, 256:428-440.
- 47. Hong Cheng and Pingwen Zhang. A Tensor Model for Liquid Crystals on a Spherical Surface. SCIENCE CHINA Mathematics, 2013, 56(12):2549-2559.
- 48. Wei Wang, Pingwen Zhang and Zhifei Zhang. Well-Posedness of the Ericksen-Leslie System. Archive for Rational Mechanics and Analysis, 2013, 210(3):837-855.
- 49. Kai Jiang, Chu Wang, Yunqing Huang and Pingwen Zhang. Discovery of New Metastable Patterns in Diblock Copolymers. Communications in Computational Physics, 2013, 14(2):443-460.
- 50. Qin Liang, Jianfeng Li, Pingwen Zhang and Je Z.Y. Chen. Modified Diffusion Equation for the Wormlike-chain Statistics in Curvilinear Coordinates. Journal of Chemical Physics, 2013, 138(24):244910.
- 51. Weiquan Xu, Kai Jiang, Pingwen Zhang and An-Chang Shi. A Strategy to Explore Stable and Metastable Ordered Phases of Block Copolymers. Journal of Physical Chemistry B, 2013, 117(17):5296-5405.
- 52. Han Wang Dan Hu and Pingwen Zhang. Measuring the Spontaneous Curvature of Bilayer Membranes by Molecular Dynamics Simulations. Communications in Computational Physics, 2013, 13(4):1093-1106.
- 53. Gai Liu, Gang Du, Tiao Lu, Xiaoyan Liu, Pingwen Zhang and Xing Zhang. Simulation Study of Quasi-Ballistic Transport in Asymmetric DG-MOSFET by Directly Solving Boltzmann Transport Equation. IEEE Transactions on Nanotechnology, 2013, 12(2):168-173.
- 54. Tiejun Li, Pingwen Zhang and Wei Zhang. Nucleation Rate Calculation for the Phase Transition of Diblock Copolymers under Stochastic Cahn-Hilliard Dynamics. Multiscale Modeling & Simulation, 2013, 11(1):385-409.
- 55. Peiwen Ji, Song Jiang and Pingwen Zhang. Computable Modeling(Chinese). SCIENCE CHINA Mathematics, 2012, 42(6):1-18.
- 56. Wei Zhang, Tiejun Li and Pingwen Zhang. Numerical Study for the Nucleation of One-Dimensional Stochastic Cahn-Hilliard Dynamics. Communications in Mathematical Sciences, 2012, 10(4):1105-1132.
- 57. Wei Wang, Pingwen Zhang and Zhifei Zhang. Well-Posedness of Hydrodynamics on the Moving Elastic Surface. Archive for Rational Mechanics and Analysis, 2012, 206(3):953-995.
- 58. Han Wang, Christof Schuette and Pingwen Zhang. Error estimate of short-range force calculation in inhomogeneous molecular systems. Physical Review E, 2012, 86(2):026704.
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